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Manufacturers of World Class Discrete Semiconductors

2N6486 2N6487 2N6488 NPN
2N6489 2N6490 2N6491 PNP

SILICON POWER
COMPLEMENTARY TRANSISTORS

JEDEC TO-220AB CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N6486, 2N6489 series types are Complementary Silicon Power Transistors designed for general purpose switching and amplifier applications.

MAXIMUM RATINGS (T_C=25°C unless otherwise noted)

	SYMBOL	2N6486 2N6489	2N6487 2N6490	2N6488 2N6491	UNIT
Collector-Base Voltage	V_{CBO}	50	70	90	V
Collector-Emitter Voltage	V_{CEO}	40	60	80	V
Emitter-Base Voltage	V_{EBO}	5.0	5.0	5.0	V
Collector Current	I_C	15	15	15	A
Base Current	I_B	5.0	5.0	5.0	A
Power Dissipation	P_D	75	75	75	W
Power Dissipation (T_A=25°C)	P_D	1.8	1.8	1.8	W
Operating and Storage Junction Temperature	T_J, T_{stg}		-65 TO +150		°C
Thermal Resistance	θ_{JC}	1.67	1.67	1.67	°C/W

ELECTRICAL CHARACTERISTICS (T_C=25°C)

		2N6486 2N6489		2N6487 2N6490		2N6488 2N6491		
SYMBOL	TEST CONDITIONS	MIN	MAX	MIN	MAX	MIN	MAX	UNIT
I_{CEV}	V_{CE}=45V, $V_{EB(OFF)}$=1.5V		500					μA
I_{CEV}	V_{CE}=65V, $V_{EB(OFF)}$=1.5V				500			μA
I_{CEV}	V_{CE}=85V, $V_{EB(OFF)}$=1.5V						500	μA
I_{CEO}	V_{CE}=½ Rated V_{CEO}		1.0		1.0		1.0	mA
I_{EBO}	V_{BE}=5.0V		1.0		1.0		1.0	mA
BV_{CEV}	V_{BE}=1.5V, I_C=200mA	50		70		90		V
BV_{CEO}	I_C=200mA	40		60		80		V
$V_{CE(SAT)}$	I_C=5.0A, I_B=0.5A		1.3		1.3		1.3	V
$V_{CE(SAT)}$	I_C=15A, I_B=5.0A		3.5		3.5		3.5	V
$V_{BE(ON)}$	V_{CE}=4.0V, I_C=5.0A		1.3		1.3		1.3	V
$V_{BE(ON)}$	V_{CE}=4.0V, I_C=15A		3.5		3.5		3.5	V
h_{FE}	V_{CE}=4.0V, I_C=5.0A	20	150	20	150	20	150	
h_{FE}	V_{CE}=4.0V, I_C=15A	5.0		5.0		5.0		
h_{fe}	V_{CE}=4.0V, I_C=1.0A, f=1.0kHz	25		25		25		
f_T	V_{CE}=4.0V, I_C=1.0A, f=1.0MHz	5.0		5.0		5.0		MHz